Application No. 09/855,142   Reply to Office Action

REMARKS

Pending Claims

Claims 1, 2, 6, 7, and 9 are pending in this application. No amendments have been made to the claims herein. Reconsideration is requested in view of the remarks herein, and the remarks in the Reply to Office Action filed June 21, 2005.

Rejections Under 35 U.S.C. § 102(b)

Claims 1, 2 and 6 to 9 are rejected under 35 U.S.C. § 102(b) as being anticipated by Hart (U.S. Patent No. 5862344). The Office Action asserts that the remarks and amendments of the Reply filed June 21, 2005 were considered, but found unpersuasive. The applicants submit that the subject matter claimed in each of the pending claims is clearly not found in or rendered obvious by the Hart reference, however, and reconsideration of the earlier remarks, as well as the remarks herein, is respectfully requested.

In considering the invention as defined by the pending claims, it will of assistance to summarize the structure and operation of the claimed invention. In the following recitation, specific language of independent claim 1 is provided in parentheses and quotes. Pending claim 1 of the present application specifies that the data packet is for holding an information request and corresponding response data together ("A data packet for holding an information request and corresponding response data together") -- that is, the response data is responsive to the information request. The data packet comprises a plurality of layers, including a routing layer and a client request layer. The routing layer contains routing information. The client request layer contains the information request. Claim 1 provides that "the data packet compris[es] a plurality of layers, the layers including a routing layer and a client request layer respectively containing routing information and the information request". Claim 1 further specifies that as the data packet is passed between respective processing nodes ("the data packet being transmittable over a distributed network including a plurality of processing nodes,"). The processing nodes leave the "plurality of layers" (i.e. the routing layer, the client request layer etc.) intact and undisturbed ("whilst leaving the plurality of layers intact and undisturbed"). Therefore, the information request from the data packet always remains the same. The processing performed by the processing nodes is processing to generate response data corresponding to the information request and that is responsive to the information request ("wherein the data packet is interpreted by a first of said processing nodes to determine whether the first of said processing nodes is able to process the information request and generate at

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least part of the response data, and wherein the data packet is expanded by the first of said processing nodes to include a further layer containing routing information relating to a next stage in the processing of the data packet to be performed at a second of said processing nodes").

Thus, the present invention provides a data packet which has an information request that *always remains in the data packet and is intact and undisturbed as it passes from one processing node to another*. The processing nodes process this information request in order to generate response data.

The "Response to Remarks" section of the Office Action states as follows:

> The first point of contention involves the processing of nodes to process a request in generating at least part of a response. Hart discloses (column 7, lines 11-24, Hart) that packets have additional information added (enveloped) to it by routers. Then, when the "enveloped" packet is read by another router (first node) it strips off the now excess data, re-address (sic) it and passes it on (route). This is viewed as processing and generating a response.

The passage of Hart referred to by the Examiner in column 7, lines 11-24, specifies as follows:

> Routers often add additional information in order to route the data packet through the network. For example, a router might wrap an Ethernet data packet in an "envelope" of data containing routing and transmission information for transmission through an X.25 packet-switched network. When the data envelope passes through the X.25 network, a receiving router strips off the X.25 data, readdresses the Ethernet data packet, and sequences it on its attached LAN segment. Routers may choose from redundant paths between networked segments or may link networked segments using very different data packaging and media accessing schemes.

Clearly, what is described in this passage is the stripping off of routing data used to route a data packet to a node and the replacement of that routing data with routing data to route the packet to another node. While some processing would be involved in stripping off routing data and replacing it with other routing data, the Hart reference does not disclose processing at the node of an information request that is contained in the data packet, and is always contained in the data packet and remains intact and undisturbed.

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In sharp contrast, the arrangement claimed in present claim 1, as discussed in the Amendment dated June 21, 2005, is a system for the distributed processing of data packets to provide response data corresponding to an information request and responsive to the information request. This is not disclosed at all or appreciated by Hart.

Further, the Office Action asserts that Hart "specifically states that the network consists of nodes that are able to be processing systems (column 3, lines 21-29, Hart)" - see the end of paragraph 3 of the Office Action. Column 3, lines 21-29 of Hart specifies as follows:

> Broadly the present invention is directed to apparatus and methods which provide processing system network connectivity, and more particularly, which enable data packets to be routed through a processing system network. The processing system network includes a plurality of sub-processing system networks (also called "sub-networks ") wherein each sub-network is either a LAN or a WAN and includes at least one node. Each node may either be a processing system or another sub-network.

It is submitted, however, that this passage in no way discloses or implies processing of the type claimed in independent claim 1 of the present application.

The second distinction between the present invention and the Hart document concerns how the routing information is generated. The "Response to Remarks" section of the Office Action additionally provides as follows:

> The second point of contention involves determining the routing information contained in the further layer. Again, Hart discloses that the packet's further layer (envelope) is added, read, processed upon (stripped, readdress and route). Hence, the further layer (envelope) is used to determine process and route the data packet as claimed.

In making this assertion, the Office Action does not recognize that independent claim 1 specifically requires that "the first of said processing nodes determining the routing information contained in the further layer in dependence upon only the data packet content." The Office Action has not even attempted to indicate where this feature of independent claim 1 is disclosed or implied by Hart. In paragraph 1 of the Office Action, the above-quoted text at column 3, lines 21-29 is referred to after the discussion of this feature of claim 1. No explanation is given, and this text in column 3 seems to be totally irrelevant to this feature.
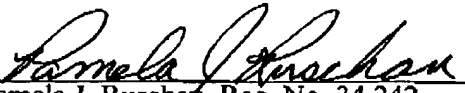
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In the Amendment dated 30th June 2005, which is incorporated herein by reference, the applicants clearly explained the advantages of an arrangement where the routing of data packet is performed in dependence only upon the content of the data packet. Such an arrangement avoids the requirement for the central Multiple Communications Adapter Module (MC AM) 100 provided by Hart. When a data packet in Hart is required to be routed between the first and second sub-network, the MCAM 100 must interrogate routing address memory 503/504 to obtain the address of the node of the second sub-network to which the data packet should be routed. The maintaining of such a database requires a considerable amount of effort -- especially when many data packets have been transmitted simultaneously. The present invention specifically seeks to avoid requiring a centralized database routing information.

Accordingly, it is respectfully submitted that independent claim 1 clearly is not anticipated or made obvious by Hart. For this reason, claim 2 is likewise considered allowable. Moreover, independent claims 6, 7 and 9 contain similar limitations which, for these same reasons, are not disclosed or rendered obvious by Hart. Accordingly, claims 6, 7, and 9, as well as dependent claim 8, are also considered allowable.

Conclusion

For the forgoing reasons and the reasons set forth in the Reply filed June 21 2005, the application claims are considered to be in good form for allowance. If, in the opinion of the Examiner, a telephone conference would expedite the prosecution of the subject application, the Examiner is invited to call the undersigned attorney.

Respectfully submitted,

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